

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1631/

Applicant: PENNICA ET AL. Examiner: M. BORIN  
Serial No.: 09/759,056 Group Art Unit: 1631  
Filed: JANUARY 11, 2001 Docket: 11669.163USU1  
Confirmation No.: 1938  
Title: NOVEL STRA6 POLYPEPTIDES

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 20, 2004.

By: 

Name: KATE GANNON

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**23552**

PATENT TRADEMARK OFFICE

Sir:

We are transmitting herewith the attached:

- ☒ Transmittal Sheet in duplicate containing Certificate of Mailing
- ☒ Supplemental Information Disclosure Statement, Form 1449, 81 Reference(s), and fee of \$180.00
- ☒ Return postcard

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers or any future reply, if appropriate. Please charge any additional fees or credit overpayment to Deposit Account No. 13-2725. A duplicate of this sheet is enclosed.

MERCHANT & GOULD P.C.  
P.O. Box 2903, Minneapolis, MN 55402-0903  
612.332.5300

By: 

Name: Anne M. Murphy

Reg. No.: 54,327

AMurphy:PLSklg



09/759,056

PATENT

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By: 

Name: KATE CANNON

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(c))

Mail Stop Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted after the mailing date of a first Office Action on-the-merits or a first Office Action after filing a Request for Continued Examination under 37 C.F.R. § 1.114 or a CPA under 37 C.F.R. § 1.53(d), but before the mailing date of: i) a final action under 37 C.F.R. § 1.113; ii) a Notice of Allowance under 37 C.F.R. § 1.311; or iii) an action that otherwise closes prosecution on the application. Enclosed is a check in the amount of \$180.00 under 37 C.F.R. § 1.17(p) for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. § 1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a

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reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

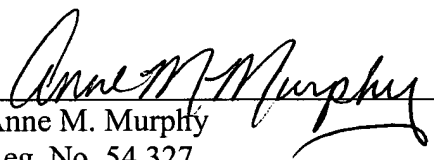
Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

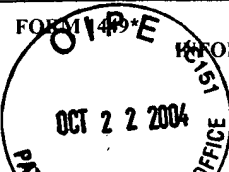
MERCHANT & GOULD P.C.  
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612.332.5300

Date

October 20, 2004

  
Anne M. Murphy  
Reg. No. 54,327  
AMM:PLSklg



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	Applicant: PENNICA ET AL.	Confirmation No. 1938
	Filing Date: 01/11/2001	Group Art Unit: 1631

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,187,819	02/13/2001	Fisher et al.			

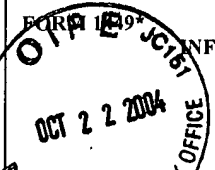
## FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 95/32221 ✓	11/30/1995	PCT				
	WO 98/54963	12/10/1998	PCT				
	WO 99/47162 ✓	09/23/1999	PCT				
	WO 01/12660 A2	02/22/2001	PCT				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

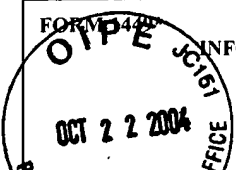
	Database EMBL 'Online! Entry/Acc.No. A1684707 28 May, 1999 STRAUSBERG R.: "wa85B10.X1 Soares-NFL_T_GBC_S1 Homo Sapiens cDNA clone image:2302939 3'. mRNA sequence." XP002174857
	Database EMBL 'Online! Entry/Acc.No. A17601070 30 June, 1999 STRAUSBERG R.: "wg58f06.X1 Soares-NSF-F8.9W_OT_PA_P_S1 Homo Sapiens cDNA clone image:2369315 3'. mRNA sequence." XP002174858 -
	Aquino et al., "Effect of the Combined Treatment with 5-Fluorouracil, $\gamma$ -Interferon or Folinic Acid on Carcinoembryonic Antigen Expression in Colon Cancer Cells", <u>Clinical Cancer Research</u> , 4(10): 2473-2481 (Oct. 1998)
	Barker et al., "The Yin-Yang of TCF/ $\beta$ -Catenin Signaling", <u>Adv. Cancer Res.</u> , 77:1-24 (2000)
	Beckmann et al., "Molecular characterization of a family of ligands for eph-related tyrosine kinase receptors", <u>EMBO J.</u> , 13:3657 (1994)
	Behrens et al., "Functional Interaction of $\beta$ -catenin with the transcription factor LEF-1", <u>Nature</u> , 382:638-642 (1996)
	Bergstein et al., "Isolation of Teo Novel WNT Genes, WNT14 and wnt15, One of Which (WNT15) Is Closely linked to WNT3 on Humann Chromosome 17q21", <u>Genomics</u> , 46:450-458 (1997)
	Bidyut Roy et al., "Synergistic Activation of Retinoic Acid (RA)-Responsive Genes and Induction of Embryonal Carcinoma Cell Differentiation by a RA Receptor $\alpha$ (RAR $\alpha$ )-, RAR $\beta$ - or RAR $\gamma$ -Selective Ligand in Combination with a Retinoid X Receptor-Specific Ligand" <u>Mol. Cell. Biol.</u> , 15(12):6481-7 (1995)
	Brenner et al., "Assessing Sequence Comparison Methods with reliable structurally identified distant evolutionary relationships", <u>Proc. Natl. Acad. Sci.</u> , 95:6073-6078 (May 1998)
	Bui et al., "A novel human Wnt gene, WNT10B, maps to 12q13 and is expressed in human breast carcinomas", <u>Oncogene</u> , 14:1249-1253 (1997)
	Caraglia et al., "5-Axa-2'-deoxycytidine induces growth inhibition and upregulation of epidermal growth factor receptor on human epithelial cancer cells", <u>Annals of Oncology</u> , 5(3):269-76 (1994)
	Clark et al., "Molecular Cloning of the Human Proto-oncogene Wnt-5A and Mapping of the Gene (WNT5A) to Chromosome 3p14-p21", <u>Genomics</u> , 18:249-260 (1993)
	Clotman et al., "All-trans-Retinoic Acid Upregulates the Expression of COUP-TFI in Early-Somite Mouse Embryos Cultured in Vitro", <u>Neurotoxicol Teratol</u> , 20:591-599 (1998)

EXAMINER	DATE CONSIDERED
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	INFORMATION DISCLOSURE STATEMENT		Docket Number: 11669.163USU1	Application Number: 09/759,056
	IN AN APPLICATION		Applicant: PENNICA ET AL.	Confirmation No. 1938
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
		Davis et al., "Ligands for EPH-Related Receptor Tyrosine Kinases That Require Membrane Attachment or Clustering for Activity", <u>Science</u> , 266:816 (1994)
		Dennis et al., "A secreted Frizzled related protein, FrzA, selectively associates with Wnt-1 protein and regulates Wnt-1 signaling", <u>Journal of Cell Science</u> , 112:3814-3820 (1999)
		Donehower et al., "Deficiency of p53 accelerates mammary tumorigenesis in Wnt-1 transgenic mice and promotes chromosomal instability", <u>Genes Dev.</u> , 9:882-895 (1995)
		Drebin et al., "Monoclonal antibodies identify a cell-surface antigen associated with an activated cellular oncogene", <u>Nature</u> , 312(5994):545-8 (1984)
		Duester, Gregg, "Families of retinoid dehydrogenases regulating vitamin A function production of visual pigment and retinoic acid", <u>Eur. J. Biochem.</u> , 267:4315-4324 (2000)
		Fear et al., "Wnt-16a, a Novel Wnt-16 Isoform, Which Shows Differential Expression in Adult Human Tissues", <u>Biochem. Biophys. Res. Commun.</u> , 278:814-820 (2000)
		Glennie et al., "Clinical trials of antibody therapy", <u>Immunol. Today</u> , 21:403-410 (2000)
		He et al., "Identification of c-MYC as a Target of the APC Pathway", <u>Science</u> , 281:1509-1512 (1998)
		Huguet et al., "Differential Expression of Human Wnt Genes 2,3,4 and 7B in Human Breast Cell Lines and Normal and disease States of Human Breast Tissue", <u>Cancer Res.</u> , 54:2615-2521 (1994)
		Ikegawa et al., "Isolation, characterization and chromosomal assignment of the human WNT7A gene", <u>Cytogenet. Cell. Genet.</u> , 74:149-152 (1996)
		Kantor et al., "Modulation of Carcinoembryonic Antigen Messenger RNA Levels in Human Colon Carcinoma Cells by Recombinant Human $\gamma$ -Interferon", <u>Cancer Research</u> , 49(1):2651-5 (1989)
		Kato et al., "Cloning expression and chromosomal localization of Wnt-13, a novel member of the Wnt gene family", <u>Oncogene</u> , 13:873-876 (1996)
		Kim et al., "Anti4-1BB Monoclonal Antibodies Enhance Antitumor Efficacy of Adoptive Immunotherapy Using Tumor-Draining Lymph Node Cells", <u>Proc. Am. Assoc. Cancer Res.</u> , 41, 91 Meet., 290, 2000 (Conference abstract:91 <sup>st</sup> Annual Meeting of the American Association for Cancer Research, San Francisco, California, USA, 2001)
		Koj et al., "Regulation of Synthesis of Some Proteinase Inhibitors in Human Hepatome Cells HepG2 by Cytokines, Hepatocyte Growth Factor", <u>Biol. Chem. Hoppe. Syler.</u> , 374:193-201 (1993)
		Korinek et al., "Constitutive Transcriptional Activation by a $\beta$ -Catenin-Tcf Complex in APC-/-Colon Carcinoma", <u>Science</u> , 275:1784-1787 (1997)
		Lako et al., "Isolation, characterization and embryonic expression of WNT11, a gene which maps the 11q13.5 and has possible roles in the development of skeleton, kidney and lung", <u>Gene</u> , 219:101-110 (1998)
		Lako et al., "Isolation and Characterization of WNT8B, a Novel Human Wnt Gene That Maps to 10q24", <u>Genomics</u> , 35:386-388 (1996)
		Lee et al., "Cloning, Chromosomal Localization, and Tissue Expression of Autotaxin from human Teratocarcinoma Cells", <u>Biochem. Biophys. Res. Commun.</u> , 218:714-719 (1996)
		Martin-Satue et al., "Identification of Semaphorin E Gene Expression in Metastatic Human Lung Adenocarcinoma Cells by mRNA Differential Display", <u>J. Surg. Oncol.</u> , 72:18-23 (1999)
		McWhirter et al., "Oncogenic homeodomain transcription factor E2A-Pbx1 activates a novel WNT gene in pre-B acute lymphoblastoid leukemia", <u>Proc. Natl. Acad. Sci. USA</u> , 96:11464-11469 (1999)
		Miller et al., "Signal transduction through $\beta$ -catenin and specification of cell fate during embryogenesis", <u>Genes &amp; Dev.</u> , 10:2527-2539 (1996)
		Morin et al., "Activation of $\beta$ -Catenin-Tcf Signaling in Colon Cancer by Mutations in $\beta$ -Catenin or APC", <u>Science</u> , 275:1787-1790 (1997)

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Moss, "Nomenclature of Retinoids", <u>Biochemical Nomenclature and Related Documents</u> , 2 <sup>nd</sup> edition, Portland Press, 1992, pp 247-251
	Moss, "Nomenclature of Retinoids", <u>Pure Appl. Chem.</u> , 55:721-726 (1983)
	Moss, "Nomenclature of Retinoids", <u>Eur. J. Biochem.</u> , 129:1-5 (1982)
	Moss, "Nomenclature of Retinoids", <u>J. Biol. Chem.</u> , 258:5329-5333 (1983)
	Moss, "Nomenclature of Retinoids", <u>Arch. Biochem. Biophys.</u> , 224:728-731 (1983)
	Murata et al., "cDNA Cloning of the Human Tumor Motility-stimulating Protein, Autotaxin, Reveals a Homology with Phosphodiesterases", <u>J. Biol. Chem.</u> , 269:30479-30484 (1994)
	Nagasawa et al., "Cloning of the cDNA for a New Member of the Immunoglobulin Superfamily (ISLR) Containing Leucine-Rich Repeat (LRR)", <u>Genomics</u> , 44:273-279 (1997)
	Nagasawa et al., "Human and Mouse ISLR (Immunoglobulin Superfamily) Containing Leucine-Rich Repeat Genes: Genomic Structure and Tissue Expression", <u>Genomics</u> , 61:37-43 (1999)
	Nagpal and Chandraratna, "Retinoids as Anti-Cancer Agents", <u>Current Pharmaceutical Design</u> , Bentham Science Publishers, 2:295-316 (1996)
	Nam et al., "Autotaxin 9ATX), a potent tumor motogen, augments invasive and metastatic potential of ras-transformed cells", <u>Oncogene</u> , 19:241-247 (2000)
	Nusse et al., "Many Tumors Induced by the Mouse Mammary Tumor Virus Contain a Provirus Integrated in the Same Region of the Host Genome", <u>Cell</u> , 31:99-109 (1982)
	Palacios et al., "Mutations in the $\beta$ -Catenin Gene (CTNNB1) in Endometroid Ovarian Carcinomas", <u>Cancer Res.</u> , 58:1344-1347 (1998)
	Pearson et al., "Differential Regulation of Biglycan and Decorin by Retinoic Acid in Bovine Chondrocytes", <u>J. Biol. Chem.</u> , 267:25364-25370 (1992)
	Peifer et al., "Wnt Signaling in Oncogenesis and Embryogenesis- A Look Outside the Nucleus", <u>Science</u> , 287:1606-1609 (2000)
	Polakis, Paul, "Wnt signaling and cancer", <u>Genes Dev.</u> , 14:1837-1851 (2000)
	Prete et al., "Drug-Induced Changes of Carcinoembryonic Antigen Expression in Human Cancer Cells: Effect of 5-Fluorouracil", <u>Journal of Pharmacology and Experimental Therapeutics</u> , 279(3):1574-1581 (1996)
	Rankin et al., "Partial cloning and assignment of WNT6 to human chromosome band 2q35 by in situ hybridization" <u>Cytogenet. Cell. Genet.</u> , 84:50-52 (1999)
	Rochette-Egly et al., "The AF-1 and AF-2 Activating Domains of Retinoic Acid Receptor- $\alpha$ (RAR- $\alpha$ ) and Their Phosphorylation Are Differentially Involved in Parietal Endodermal Differentiation of F9 Cells and Retinoic-Acid-Induced Expression of Target Genes", <u>Mol. Endocrinol.</u> , 14(9):1398-1410 (2000)
	Roelink et al., "Molecular Cloning and Chromosomal Localization to 17q21 of the Human WNT3 Gene", <u>Genomics</u> , 17:790-792 (1993)
	Roose et al., "Synergy Between Tumor Suppressor APC and the $\beta$ -Catenin-Tcf4 target Tcf1", <u>Science</u> , 285:1923-1926 (1999)
	Rubinfeld et al., "Stabilization of $\beta$ -Catenin by Genetic Defects in Melanoma Cell Lines", <u>Science</u> , 275:1790-1792 (1997)
	Sakanaka et al., "New steps in the Wnt/beta-catenin signal transduction pathway", <u>Recent Prog. Horm. Res.</u> , 55:225-236 (2000)
	Smolich et al., "Regulated Expression of Wnt Family Members during Neuroectodermal Differentiation of P19 Embryonal Carcinoma Cells: Overexpression of Wnt-1 Perturbs Normal Differentiation - Specific Properties, <u>Dev. Biol.</u> , 166:300-310 (1994)

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	St-Arnaud et al., "The <i>int-1</i> proto-oncogene is transcriptionally activated during neuroectodermal differentiation of P19 mouse embryonal carcinoma cells", <u>Oncogene</u> , 4(9):1077-1080 (1989)
	Stearns et al., "Liazarole and 13-cis-Retinoid Acid Anti-Prostatic Tumor Activity", <u>Cancer Research</u> , 53(13):3072-3077 (July 1993)
	Szeto et al., "Overexpression of the Retinoic Acid-Responsive Gene <i>Stra6</i> Human Cancers and Its Synergistic Induction by Wnt-1 and Retinoic Acid", <u>Cancer Research</u> , 61:4197-4250 (May 15, 2001)
	Tetsu et al., " $\beta$ -Catenin regulates expression of cyclin D1 in colon carcinoma cells", <u>Nature</u> , 398:422-426 (1999)
	Tice et al., "Synergistic Induction of Tumor Antigens by Wnt-1 Signaling and Retinoid Acid Revealed by Gene Expression Profiling", <u>The Journal of Biological Chemistry</u> , US 277(16):14329-14335 (April 2002)
	Tremblay et al., "Retinoic Acid Stimulates the Expression of 11 $\beta$ -Hydroxysteroid Dehydrogenase Type 2 in Human Choriocarcinoma JEG-3 Cells", <u>Biol. Reprod.</u> , 60:541-545 (1999)
	Van Ooyen et al., "The nucleotide sequence of the human <i>int-1</i> mammary oncogene; evolutionary conservation of coding and non-coding sequences", <u>EMBO J.</u> , 4:2905-2909 (1985)
	Wade et al., "Regulation of the cholesterol efflux gene, <i>ABCA1</i> ", <u>Lancet</u> , 357:161-163 (2001)
	Wainwright et al., "Isolation of a human gene with protein sequence similarity to human and murine <i>int-1</i> and the <i>Drosophila</i> segment polarity mutant <i>wingless</i> ", <u>EMBO J.</u> , 7:1743-1748 (1988)
	Wells et al., "Cassette mutagenesis: an efficient method for generation of multiple mutations at defined sites", <u>Gene</u> , 34:315 (1985)
	Wodarz et al., "Mechanisms of WNT Signaling in Development" <u>Annu. Rev. Cell. Dev. Biol.</u> , 14:59-88 (1998)
	Wodicka et al., "Genome-wide expression monitoring in <i>Saccharomyces cerevisiae</i> ", <u>Nat. Biotechnol.</u> , 15:1359-1367 (1997)
	Wong et al., "Differential Transformation of Mammary Epithelial Cells by Wnt Genes", <u>Mol. Cell. Biol.</u> , 14:6278-6286 (1994)
	Xiang et al., "Expression of Co-stimulatory 4-1BB Ligand Induces Significant Tumor Regression and Protective Immunity", <u>Cancer Biotherapy and Radiopharmaceuticals</u> , 14(5):353-361 (1999)
	Yamada et al., "Identification of semaphorin E as non-MDR drug resistance gene of human cancers", <u>Proc. Natl. Acad. Sci. USA</u> , 94:14713-14718 (1997)
	Zhang et al., "The Retinoic Acid and cAMP-dependent Up-regulation of 3-O-Sulfotransferase-1 Leads to a Dramatic Augmentation of Anticoagulant Active Heparan Sulfate Biosynthesis in F9 Embryonal Carcinoma Cells", <u>J. Biol. Chem.</u> , 273:27998-28003 (1998)
	Zhang et al., "Gene Expression Profiles in Normal and Cancer Cells", <u>Science</u> , 276:1268-1272 (1997)
	Ziemer et al., "Identification of a Mouse Homolog of the Human BTEB2 Transcription Factor as a $\beta$ -Catenin-Independent Wnt-1 Responsive Gene", <u>Mol. Cell. Biol.</u> , 21:562-574 (2001)

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